PC-0034 US

5

10

15

20

25

30

What is claimed is:

- 1. An isolated cDNA comprising a nucleic acid sequence encoding a protein having the amino acid sequence of SEQ ID NO:1, or the complement thereof.
- 2. An isolated cDNA comprising a nucleic acid sequence selected from:
 - a) SEQ ID NO:2 or the complement thereof;
 - b) a fragment of SEQ ID NO:2 selected from SEQ ID NOs:3-5 or the complement thereof; and
 - c) a variant of SEQ ID NO:2 selected from SEQ ID NOs:6-11 or the complement thereof.
- 3. A composition comprising the cDNA or the complement of the cDNA of claim 1 and a labeling moiety.
- 4. A vector comprising the cDNA of claim 1.
- 5. A host cell comprising the vector of claim 4.
- 6. A method for using a cDNA to produce a protein, the method comprising:
 - a) culturing the host cell of claim 5 under conditions for protein expression; and
 - b) recovering the protein from the host cell culture.
- 7. A method for using a cDNA to detect expression of a nucleic acid in a sample comprising:
 - a) hybridizing the composition of claim 3 to nucleic acids of the sample, thereby forming hybridization complexes; and
 - b) comparing hybridization complex formation with a standard, wherein the comparison indicates expression of the cDNA in the sample.
- 8. The method of claim 7 further comprising amplifying the nucleic acids of the sample prior to hybridization.
- 9. The method of claim 7 wherein the composition is attached to a substrate.
- 10. The method of claim 7 wherein the cDNA is differentially expressed when compared with a standard and diagnostic of breast cancer, ovarian cancer, kidney cancer, Mohr-Tranebjaerg syndrome, epilepsy, spasticity, or dystonia.
- 11. A method of using a cDNA to screen a plurality of molecules or compounds, the method comprising:
 a) combining the cDNA of claim 1 with a plurality of molecules or compounds under conditions to
 allow specific binding; and
 - b) detecting specific binding, thereby identifying a molecule or compound which specifically binds the cDNA.
- 12. The method of claim 11 wherein the molecules or compounds are selected from DNA molecules. RNA molecules, peptide nucleic acids, artificial chromosome constructions, peptides, transcription factors.



5

10

15

20

25

30

repressors, and regulatory molecules.

- 13. A purified protein or a portion thereof produced by the method of claim 6 and selected from:
 - a) an amino acid sequence of SEQ ID NO:1;
 - b) an antigenic epitope of SEQ ID NO:1; and
 - c) a biologically active portion of SEQ ID NO:1.
- 14. A composition comprising the protein of claim 13 and a pharmaceutical carrier.
- 15. A method for using a protein to screen a plurality of molecules or compounds to identify at least one ligand, the method comprising:
 - a) combining the protein of claim 13 with the molecules or compounds under conditions to allow specific binding; and
 - b) detecting specific binding, thereby identifying a ligand which specifically binds the protein.
- 16. The method of claim 15 wherein the molecules or compounds are selected from DNA molecules, RNA molecules, peptide nucleic acids, peptides, proteins, mimetics, agonists, antagonists, antibodies, immunoglobulins, inhibitors, and drugs.
- 17. A method of using a protein to prepare and purify antibodies comprising:
 - a) immunizing a animal with the protein of claim 15 under conditions to elicit an antibody response;
 - b) isolating animal antibodies;
 - c) attaching the protein to a substrate;
 - d) contacting the substrate with isolated antibodies under conditions to allow specific binding to the protein;
 - e) dissociating the antibodies from the protein, thereby obtaining purified antibodies.
- 18. An antibody produced by the method of claim 17.
- 19. A method for using an antibody to diagnose a disease or condition associated with expression of a protein, the method comprising:
- a) combining the antibody of claim 18 with a sample, thereby forming antibody:protein complexes; and
 - b) comparing complex formation with a standard, wherein the comparison indicates expression of the protein in the sample.
- 20. The method of claim 19 wherein the disease or condition is selected from breast cancer, ovarian cancer, kidney cancer, Mohr-Tranebjaerg syndrome, epilepsy, spasticity, and dystonia.